

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A coordinate measuring device having a probe for contacting ~~the~~ an object ~~(15)~~ to be measured, the probe comprising:

~~(a)~~—a sensing member ~~(18)~~ for contacting the object;

~~(b)~~—a support unit ~~(13)~~;

~~(c)~~—a supporting element ~~(25)~~ connecting said sensing member ~~(18)~~ to said support unit ~~(13)~~;

~~(d)~~—a detection member ~~(22)~~;

~~(e)~~—detection means ~~(23)~~ for detecting the position of said detection member ~~(22)~~;

~~characterized in that~~ wherein said detection member ~~(22)~~ is carried by a connection element ~~(26)~~, and in that said connection element ~~(26)~~ is attached to said sensing member ~~(18)~~,

wherein said supporting element ~~(25)~~ and said connection element ~~(26)~~ are positioned substantially adjacent to and parallel with each other without touching each other, and

wherein said connection element is longer than said supporting element so that said supporting element does not contact said detection member.

2. (Canceled)

3. (Canceled).

4. (Currently Amended) The coordinate measuring device as claimed in claim 1, ~~characterized in that~~wherein said supporting element (25) substantially envelops said connection element ~~(26)~~.

5. (Currently Amended) The coordinate measuring device as claimed in claim 4, wherein said supporting element ~~(25)~~ is a hollow tube completely surrounding said connection element ~~(26)~~.

6. (Withdrawn-currently amended) The coordinate measuring device as claimed in claim 1, ~~characterized in that~~wherein the supporting element ~~(25)~~ as well as the connection element ~~(26)~~ includes a bend.

7. (Currently Amended) A method of measuring the position of an object, the object ~~(15)~~ being measured is contacted by a sensing member ~~(18)~~ of a probe, the probe comprising the sensing member ~~(18)~~, a supporting element ~~(25)~~ carrying the sensing member ~~(18)~~ and being attached to a support unit ~~(13)~~, in which the location of the sensing member ~~(18)~~ is measured by detecting the position of a detection member ~~(22)~~ which is connected to the sensing member ~~(18)~~ through a connection element ~~(26)~~, wherein said supporting element ~~(25)~~ and said connection element ~~(26)~~ are positioned substantially adjacent to and parallel with each other without touching each other, wherein said connection element is longer than said supporting element so that said supporting element does not contact said detection member.

8. (Currently Amended) The coordinate measuring device as claimed in claim 1, further comprising a spring ~~(19)~~ connecting between said supporting element ~~(25)~~ and said support unit ~~(13)~~.

9. (Withdrawn-currently amended) The coordinate measuring device as claimed in claim 8, wherein said spring ~~(19)~~ is a leaf spring.

10. (Withdrawn-currently amended) The coordinate measuring device as claimed in claim 1, wherein said sensing member ~~(18)~~ comprises a spherical portion ~~(28)~~ and a bar-like portion ~~(29)~~, said supporting element ~~(25)~~ and said connection element ~~(26)~~ being connected to said bar-like portion ~~(29)~~.

11. (Withdrawn-currently amended) The coordinate measuring device as claimed in claim 1, wherein said sensing member ~~(18)~~ comprises a plurality of spherical portions ~~(28)~~ and a plurality of bar-like portions ~~(29)~~, each one of said spherical portions ~~(28)~~ being connected to one of the said plurality of bar-like portions ~~(29)~~.

12. (Withdrawn-currently amended) The coordinate measuring device as claimed in claim 1, wherein said detection member ~~(22)~~ comprises a pyramid having an inclined triangular surface ~~(30)~~, and said detection means ~~(23)~~ comprises a laser beam ~~(31)~~ and a detector screen ~~(36)~~, wherein said laser beam ~~(31)~~ is directed to said inclined triangular surface ~~(30)~~ to generate a reflected laser beam ~~(35)~~ incident on said detector screen ~~(36)~~.

13. (Currently Amended) A coordinate measuring device having a probe

for contacting an object—(15) to be measured, the probe comprising:

a support unit—(13);

a sensing member—(18);

a spring—(19) connected to said support unit—(13);

a detection member—(22);

a detection means—(23) for detecting position of said
detection member—(22);

a supporting element—(25) having a first support end and a
second support end, said first support end being connected to said
spring—(19) and said second support end being connected to said
sensing member—(18);

a connection element—(26) having a first connect end and a
second connect end, said first connect end being connected to said
detection member—(22) and said second connect end being connected
to said sensing member—(18);

wherein said supporting element—(25) and said connection
element (26) are substantially adjacent to and parallel with each
other without touching each other, wherein said connection element
is longer than said supporting element so that said supporting
element does not contact said detection member.

14. (Currently Amended) The coordinate measuring device as claimed in claim ~~14~~ 13, wherein said supporting element ~~(25)~~ is a tube having a hollow center, said connection element ~~(26)~~ being disposed in said hollow center.

15. (Withdrawn-currently amended) The coordinate measuring device as claimed in claim 14, wherein said supporting element ~~(25)~~ includes a 90 degree bend.